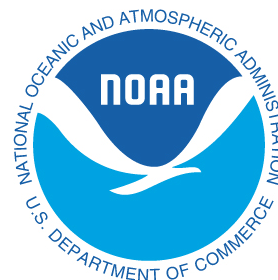


NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
US DEPARTMENT OF COMMERCE

A Bibliometric Analysis of Articles by NOAA-Affiliated Authors Published During Fiscal Year 2016

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ABOUT THIS REPORT

This report presents a summary-level bibliometrics analysis of peer-reviewed publications produced by NOAA-affiliated authors during the U.S. Government's fiscal year 2016. In this report, we attempt to provide a high-level overview of the number of publications produced per quarter, line office, and research unit; the intramural and extramural collaborations that produced these publications; and trends in NOAA publication habits.

The data presented in this report were derived from the Web of Science, Science Citation Index Expanded (WoS) database and are accurate as of 10 February, 2017. Publications were identified by searching for NOAA, NOAA line offices, or NOAA research units in the authors' stated affiliations. Search results were manually reviewed and verified for accuracy and assigned to line office and research labs based on the NOAA author's, or authors', listing in the NOAA staff directory. Our use of WoS to identify publications means that peer-reviewed publications by NOAA authors in publication venues not available in WoS – primarily book chapters, technical reports, data sets, and articles in some journals – are not included in this analysis. More information about why certain publications may not appear in this report, as well as a full list of the publications that were analyzed in this report, are available at http://www.lib.noaa.gov/tools/guides/noaa_publications.html.

The findings presented here are those of the authors and do not necessarily reflect any opinion or position of NOAA, the Department of Commerce, or the U.S. Government.

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ARTICLE PRODUCTION

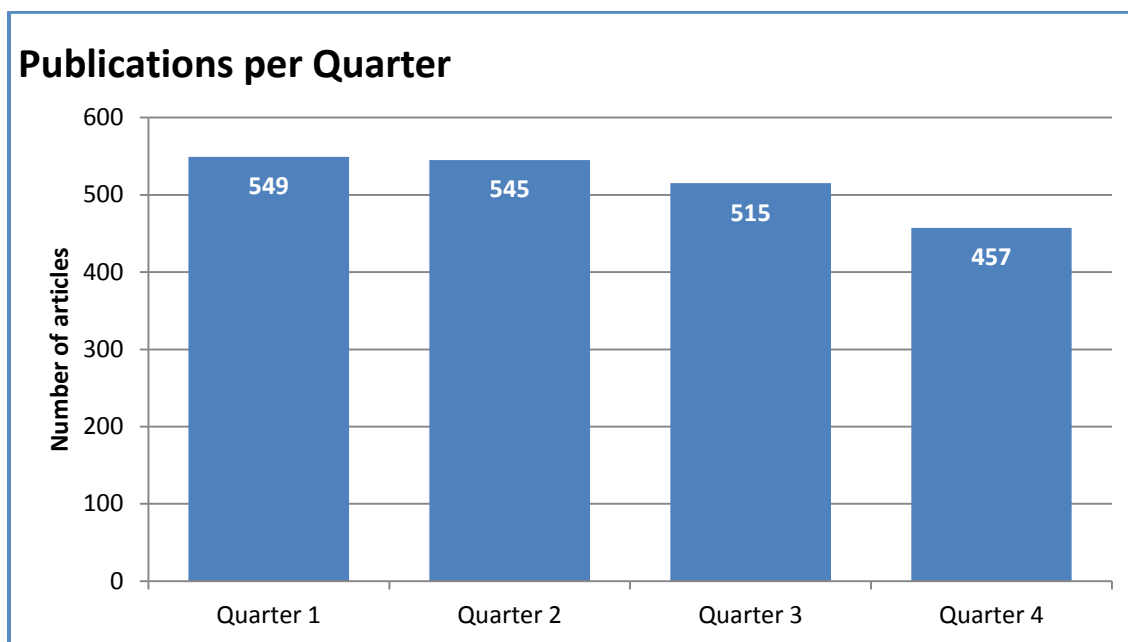


FIGURE 1: Non-cumulative number of publications by NOAA-affiliated authors per quarter. There were 2,066 articles published during FY2016.

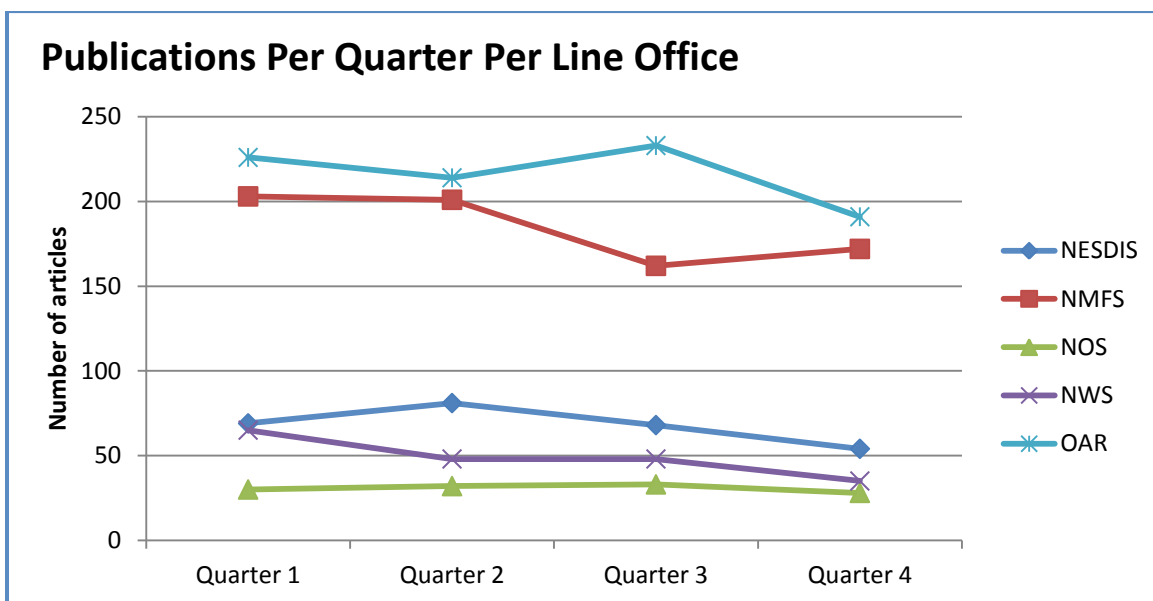


FIGURE 2: Non-cumulative number of publications by NOAA-affiliated authors per quarter per line office. A single publication with authors from more than one line office is counted as one publication for each line office.

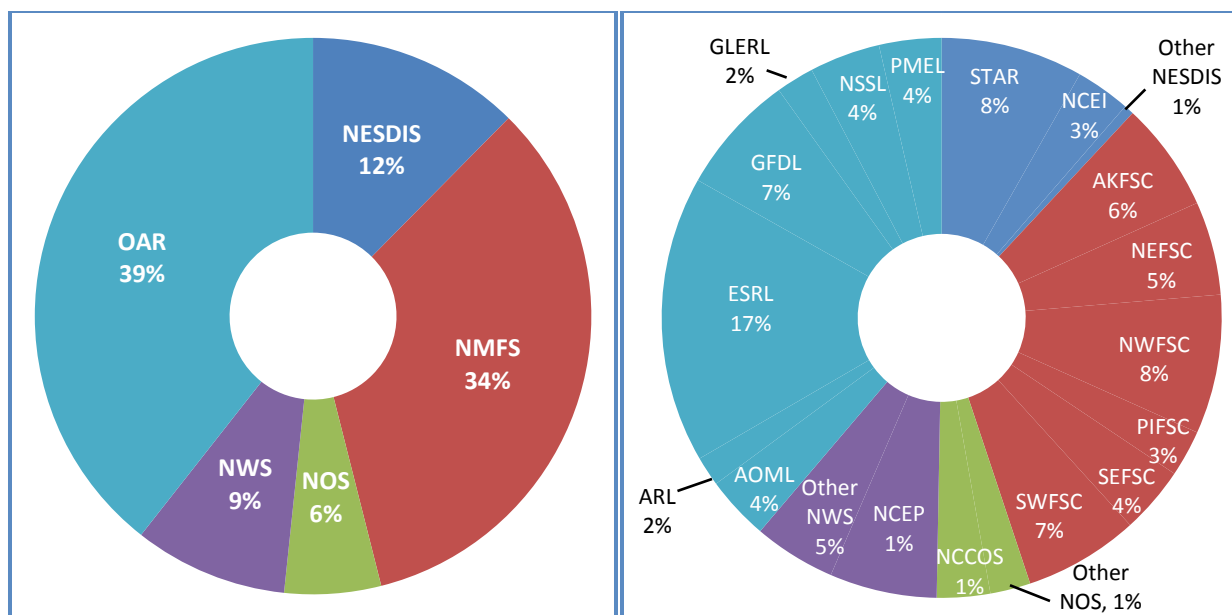


FIGURE 3: Number of publications per Line Office as a percentage of all NOAA-authored publications. A single publication with authors from more than one line office is counted as one publication for each line office.

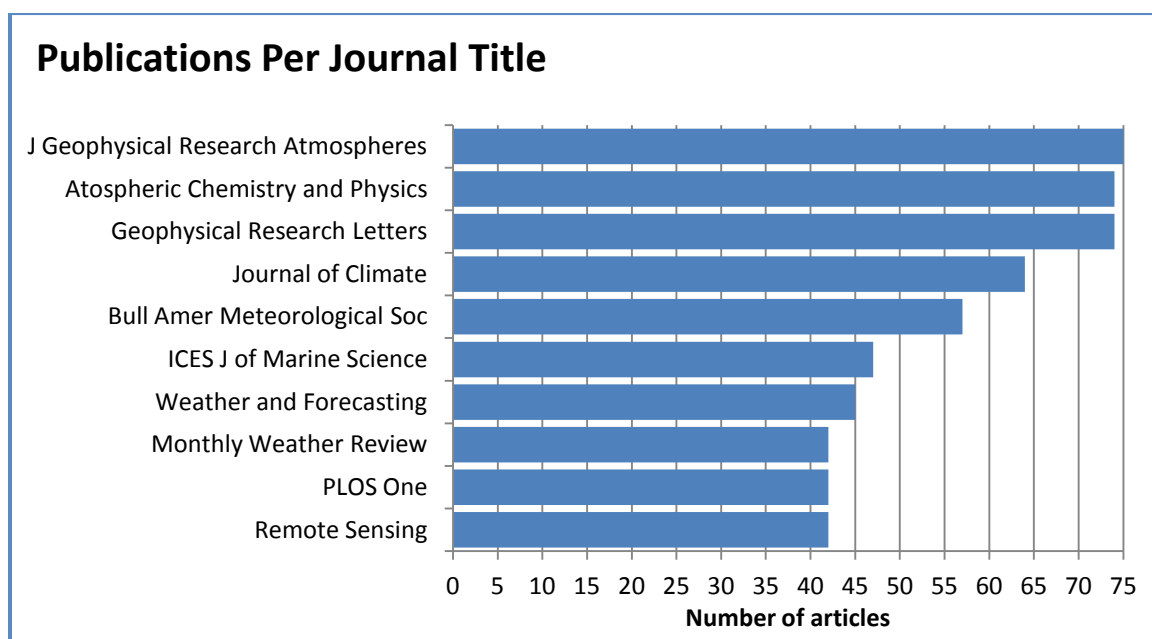


FIGURE 4: Number of publications per journal. NOAA-authored publications appeared in 389 distinct journals in FY2016 however, only the top 10 journals by publication count are shown.

COLLABORATION

Type of Collaboration	Rate
Intramural collaboration at the line office level	5.76 %
Intramural collaboration at the research unit level	12.49 %
Extramural collaboration at the institutional level	94.02 %
Extramural collaboration at the international level	44.02 %

TABLE 1: Collaboration rates at various levels of aggregation for NOAA-authored publications in FY16. Each percentage gives the percentage of all NOAA-authored publications that feature at least one co-authorship pair at each level of aggregation.

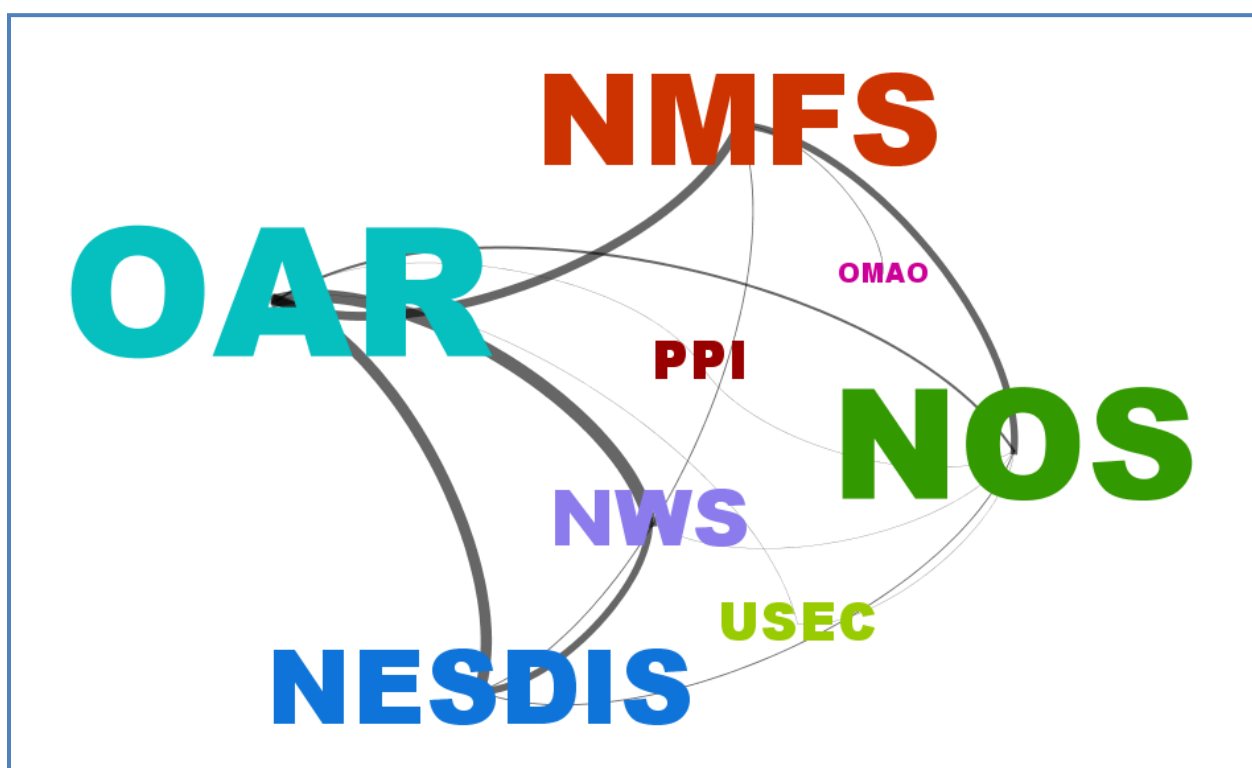


FIGURE 5: Collaboration network of NOAA line offices based on co-authored publications in FY16. Line offices are sized based on the number of publications produced during FY16. Line offices are connected if authors from the connected offices co-authored one or more publications during FY16, with larger and darker connections indicating higher numbers of co-authored publications (connection values range from 1 to 35).

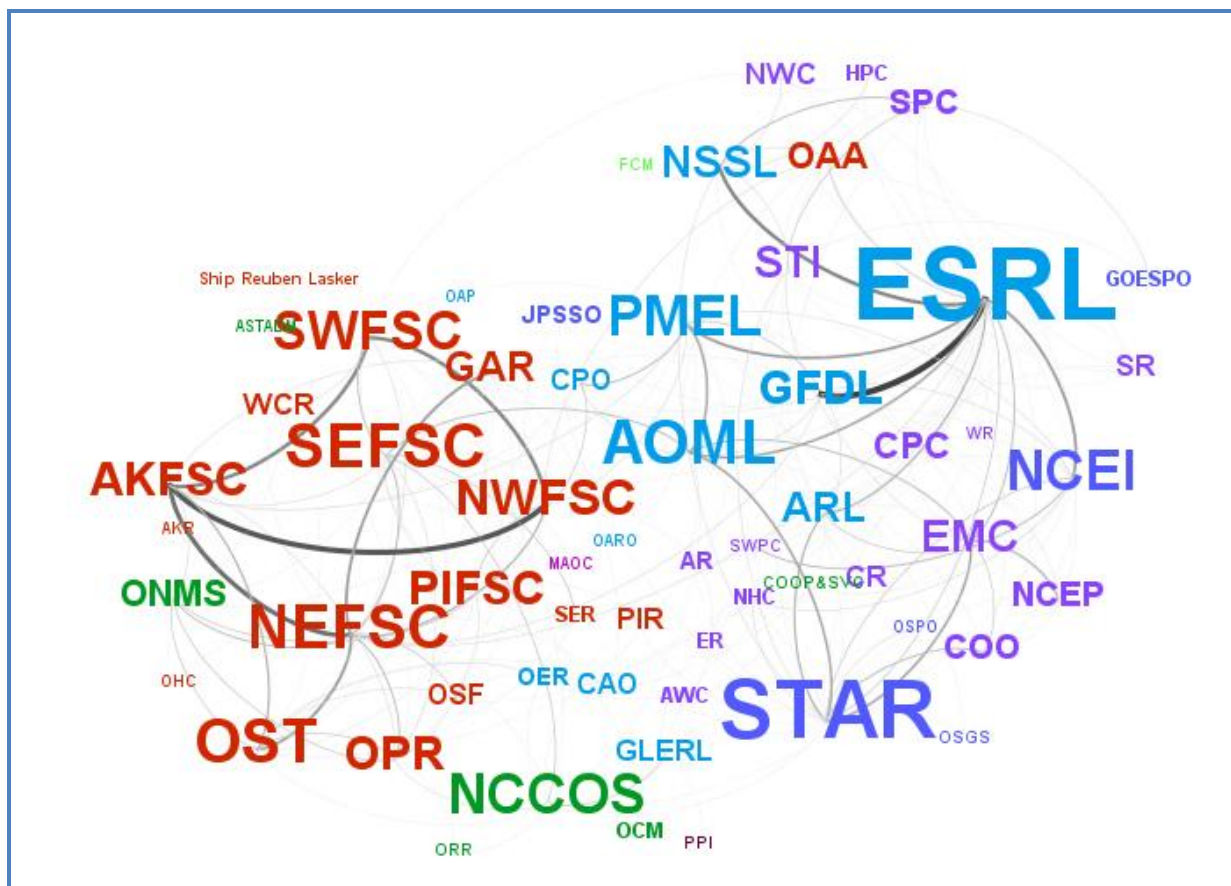


FIGURE 6: Collaboration network of NOAA R&D units based on co-authored publications in FY16. Units are sized based on the number of publications produced during FY16 and colored by Line Office. Units are connected if authors from the connected units co-authored one or more publications during FY16, with larger and darker connections indicating higher numbers of co-authored publications (connection values range from 1 to 15). For visual clarity, only units that co-authored at least one publication with another unit are shown.

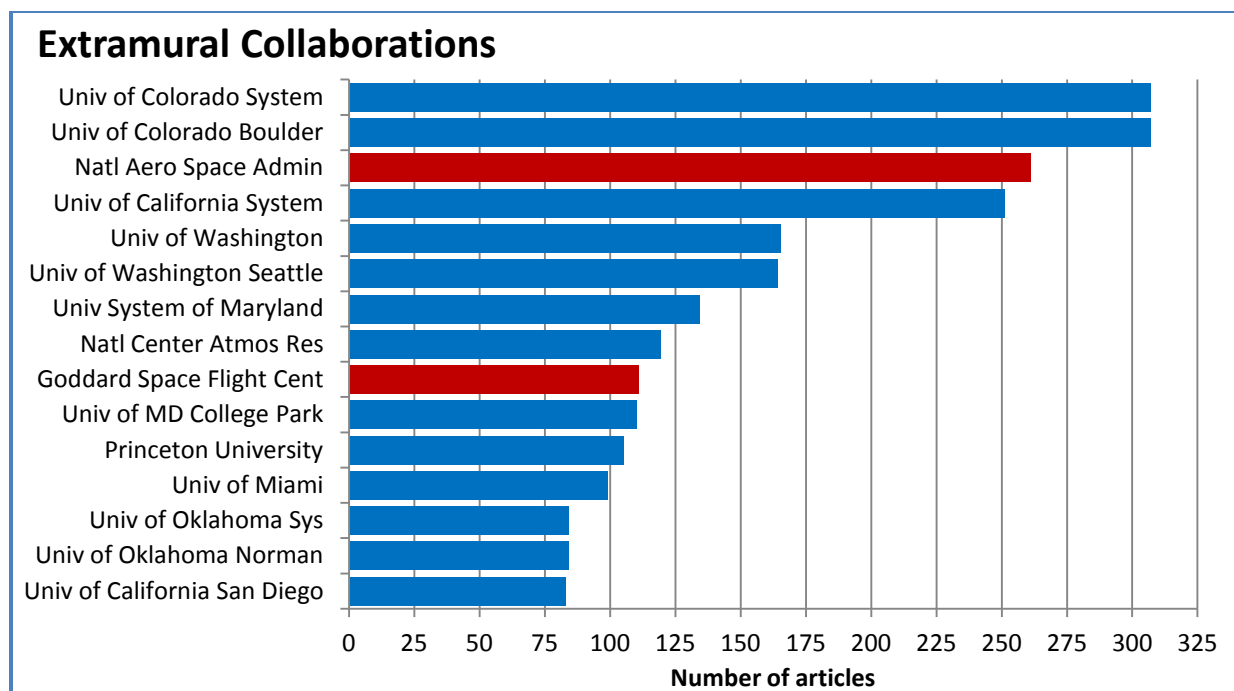


FIGURE 7: Top 15 extramural collaborators as measured by the number of publications co-authored by authors from NOAA and each institution. Institutions are color-coded by type: universities are blue and other US Government agencies are red.

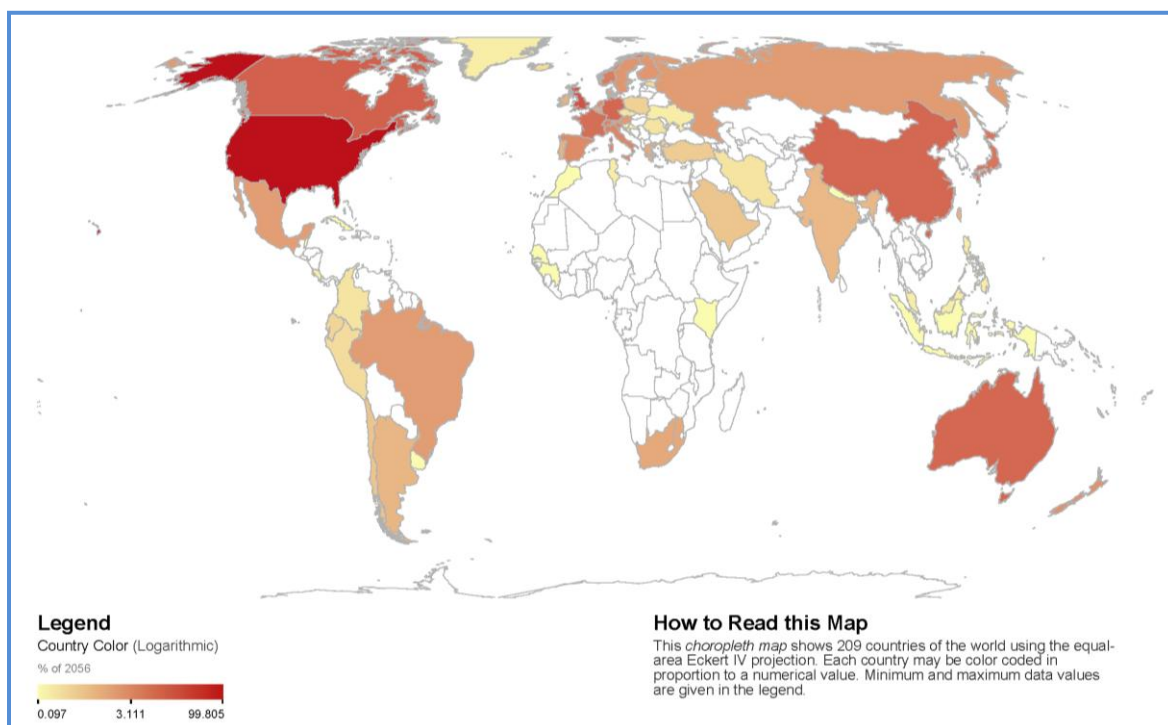


FIGURE 8: Geographic map showing NOAA's international collaboration as measured by the number of publications co-authored by authors with institutional affiliations in countries outside the US.

RESEARCH TOPS

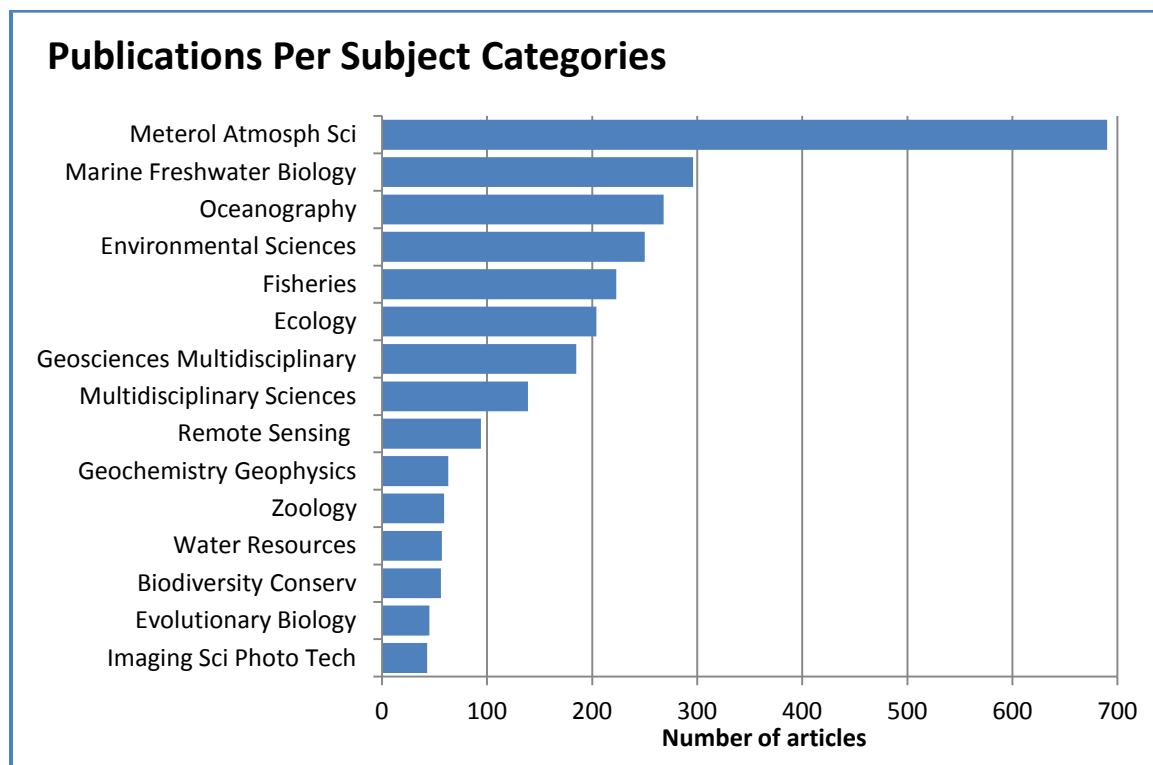


FIGURE 9: Number of NOAA-authored publications per subject category. Subject categories are defined, and assigned to articles, by Web of Science based on the journal in which each article was published. These categories overlap, so a single article can be assigned to multiple subject categories. Only the top 15 subject categories by publication counts are shown.

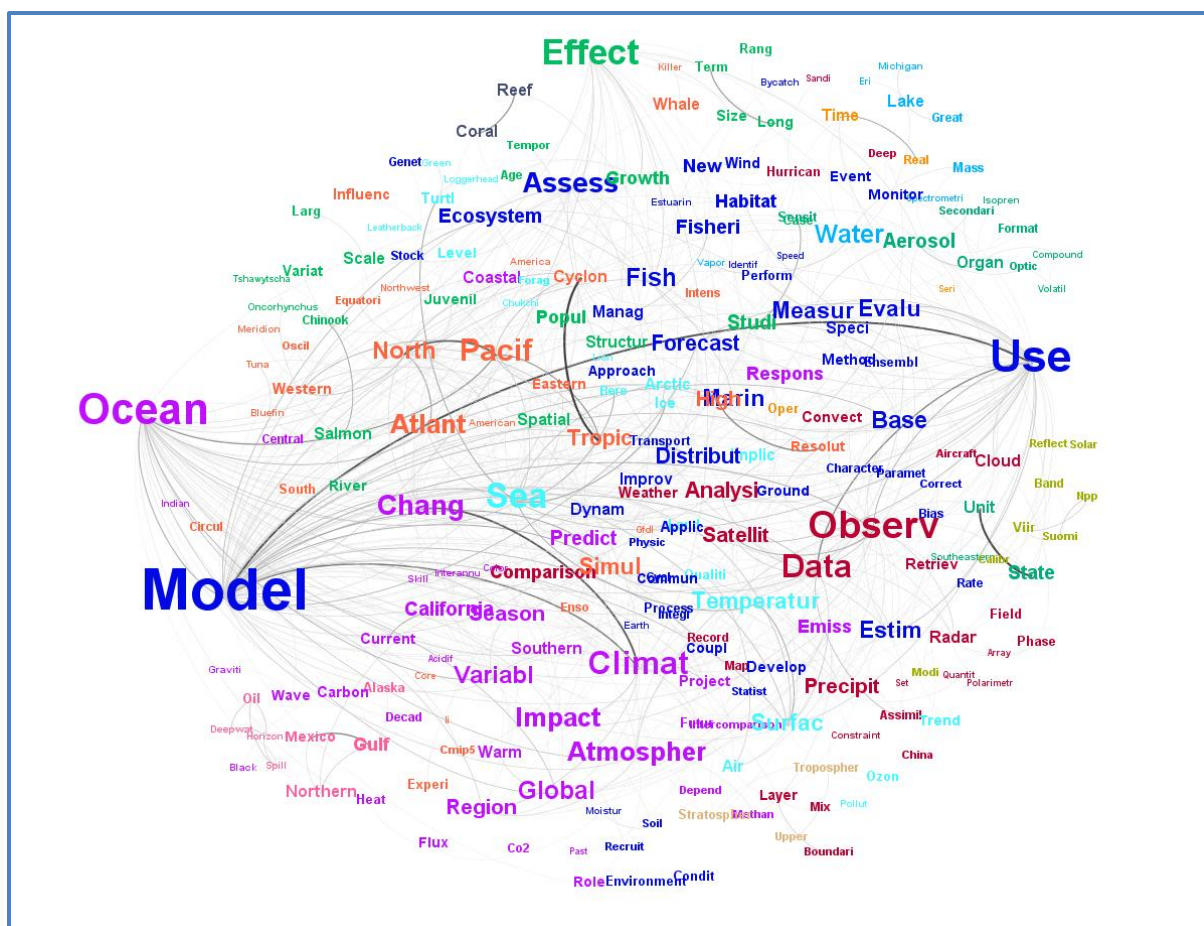


FIGURE 10: Word co-occurrence network of the 239 most frequently co-occurring words in the titles of NOAA-authored publications during FY16. Words are sized based on the number of titles in which the word appears and colored to illustrate groups of words that tend to be used together in publication titles. Words are connected if they both appear in the same article title; larger and darker connections indicate higher numbers of title co-occurrences (co-occurrence values range from 6 to 46). Words and word co-occurrences that appear in fewer than 6 article titles were removed to increase visual clarity and to focus on the most important words and word pairs.

PUBLICATION TRENDS

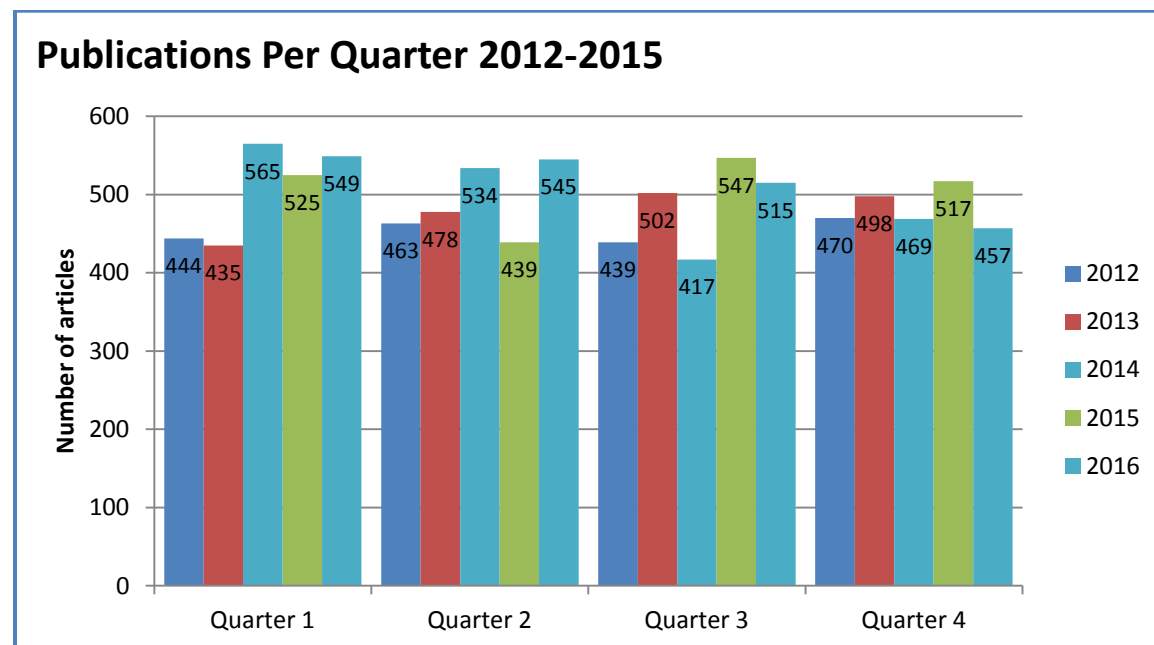


FIGURE 1: Non-cumulative number of publications by NOAA-affiliated authors per quarter. There were 1,816 articles published during FY2012, 1,913 during FY2013, 1,989 during FY2014, 2,028 during FY2015, and 2,066 during FY2016.

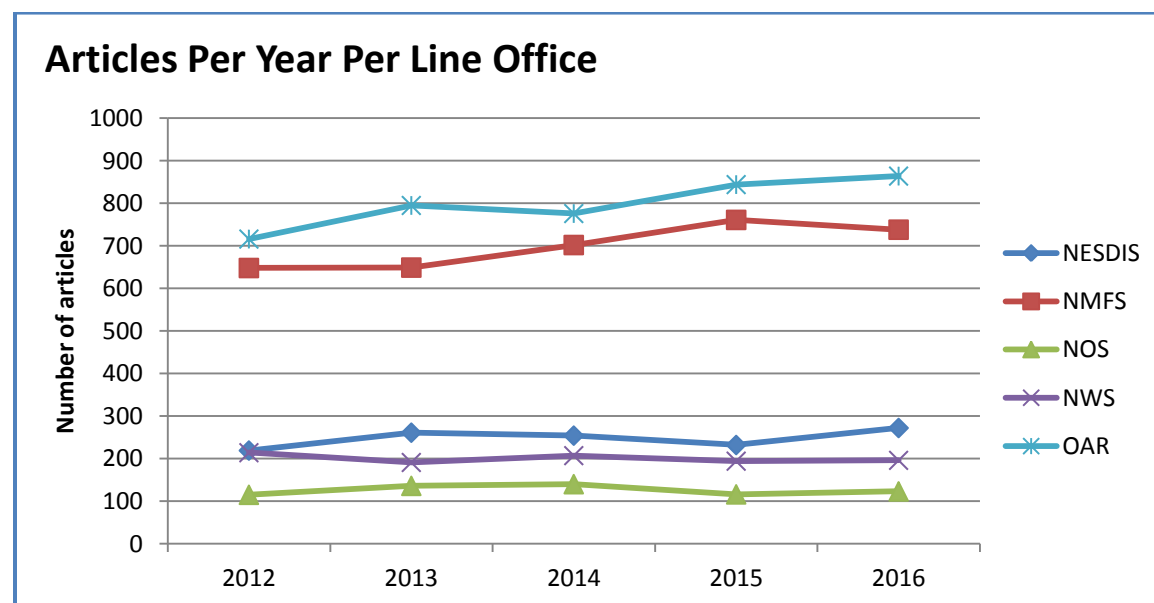


FIGURE 2: Non-cumulative number of publications by NOAA-affiliated authors per year per line office. A single publication with authors from more than one line office is counted as one publication for each line office.